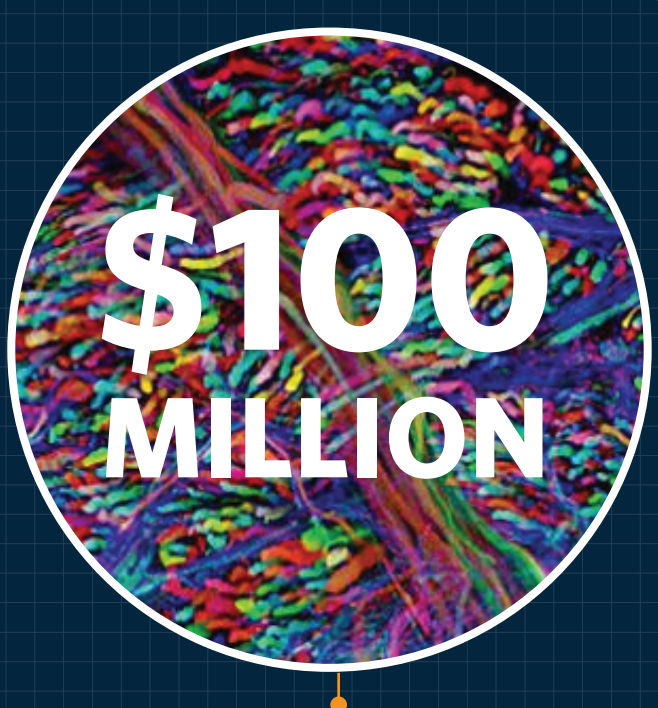
the WHITE HOUSE

PRESIDENT OBAMA IS CALLING ON THE SCIENCE COMMUNITY
TO JOIN HIM IN PURSUING A GRAND CHALLENGE

BRAIN INITIATIVE

BRAIN RESEARCH THROUGH ADVANCING INNOVATIVE NEUROTECHNOLOGIES



BRAINSTEM

Approximate investment to give scientists the tools they need to get a dynamic picture of the brain and better understand how we think, learn, and remember.

DARPA
DEFENSE ADVANCED RESEARCH PROJECTS AGENCY

$50 million for understanding the dynamic functions of the brain and demonstrating breakthrough applications based on these insights

NIH
NATIONAL INSTITUTES OF HEALTH

Approximately $40 million to develop new tools, training opportunities, and other resources

NSF
NATIONAL SCIENCE FOUNDATION

Approximately $20 million to support research that spans physical, biological, social, and behavioral sciences.

PURKINJE CELLS

DENTATE GYRUS

POSSIBLE LONG-TERM OUTCOMES

Better understand the mechanisms underlying Parkinson's disease to inform improved treatments, preventions, and even cures

Reduce language barriers through technological advances in how computers interface with human thought

Develop solutions to prevent, treat, or even reverse the harmful effects of PTSD and Traumatic Brain Injury in returning war veterans

Create high-tech jobs for Americans in cutting-edge industries of the future

Key private sector partners have made important commitments to support the BRAIN Initiative.
We encourage companies, universities, and philanthropists to get involved.

OCULOMOTOR NEURONS

PARTNERS

$60 MILLION
ANNUALLY
THE ALLEN INSTITUTE FOR BRAIN SCIENCE

$30 MILLION
ANNUALLY
HOWARD HUGHES MEDICAL INSTITUTE

$4 MILLION
ANNUALLY FOR 10 YRS
KAVLI FOUNDATION

$28 MILLION
SALK INSTITUTE FOR BIOLOGICAL STUDIES

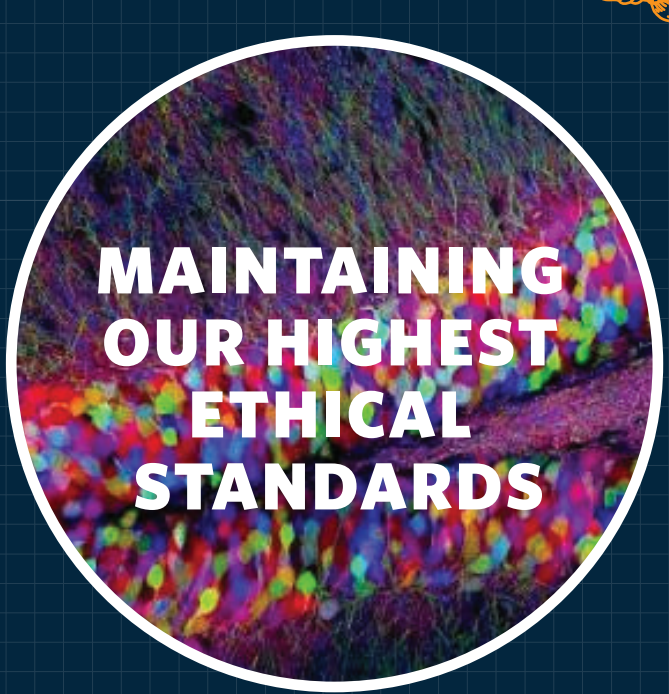
GOALS

Understand how brain activity leads to perception, decision making and ultimately action

Develop new imaging technologies and understand how information is stored and processed in neural networks

Provide the knowledge for addressing debilitating diseases and conditions

Produce a sophisticated understanding of the brain, from individual genes to neuronal circuits to behavior



DENTATE GYRUS - HILUS

President Obama will direct his Commission for the Study of Bioethical Issues to explore the ethical, legal, and societal implications raised by this research initiative and other recent advances in neuroscience.

The Human Genome Project demonstrates the potential impact that ambitious research programs like the BRAIN initiative can have.
From 1988-2003, the Federal Government invested $3.8 billion in the Human Genome Project, which has since generated an economic output of $796 billion —a return of $141 for every $1 invested.

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All images from: cbs.fas.harvard.edu/science/connectome-project/brainbow